

METHOD AND APPARATUS FOR BLOW-MOLDING AN ARTICLE
HAVING A SOLID RADIALY OUTWARDLY PROJECTING FLANGE

CROSS-REFERENCE TO RELATED APPLICATION

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5 This application is a continuation-in-part of Application Serial No. 10/224,101,
now abandoned,
filed August 20, 2002, ~~which is currently pending~~ and is hereby incorporated herein by
reference.

BACKGROUND OF THE INVENTION

The invention relates to blow molding processes and to apparatus for making
blow-molded articles.

10 Conventional blow-molded containers generally have small-diameter top ends
that are threaded to accept screw-on caps. In some applications, such top ends are
undesirable because of the nature of the contents of the container, which in some cases
may require wide-mouth openings to facilitate getting the contents into and out of the
container. Thus, alternative closures such as seal-on membranes or seamed-on metal
15 closures would be desirable in many cases.

However, it has not been practical or cost-effective to employ seal-on membranes
or seamed-on metal end closures for such containers because the blow-molding process
has not allowed for easily making the type of flat, outwardly extending flanges required
for such closures. To provide such a flange in a blow-molded container, it has been
20 necessary to form an intermediate blow-molded article in a particular manner and then
perform finishing operations on the intermediate article. More specifically, the tubular
side wall of the intermediate article is molded to include a hollow generally U-shaped
section that extends radially outwardly from the side wall. A lower leg of the U-shaped
section extends generally radially and will form the flange on a finished container. The
25 lower leg is joined at its outer end to the rest of the generally U-shaped section. After
removing the intermediate article from the mold, the article is subjected to two separate
cutting operations. In a first cutting operation, a cut is made near the outer edge of the
lower leg of the U-shaped section to sever the leg from the rest of the section. A second